

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA, SAN FRANCISCO DIVISION

JAMES MILSTEAD, et al.,

Plaintiffs,

v.

GENERAL MOTORS LLC, et al,

Defendants.

Case No. 4:21-cv-06338-JST

**DECLARATION OF DUSTIN M. EDMUNDS IN  
SUPPORT OF GENERAL MOTORS LLC'S  
OPPOSITION TO APTIV SERVICES US, LLC'S  
MOTION FOR PROTECTIVE ORDER FROM  
GENERAL MOTORS LLC'S BUSINESS  
RECORDS SUBPOENA**

The Hon. Jon S. Tigar

1. I am over the age of 18. This Declaration is based on my personal knowledge. If called as a witness, I would testify to the following facts.

2. I have been employed by General Motors LLC ("GM") in an engineering capacity for nearly 15 years. I am currently a Senior Technical Expert in the Engineering Analysis group of GM's Global Product Safety and Systems Organization.

3. Based on information learned and my experience over the past approximately 15 years of my employment at GM (and prior experience dating back to 2005) and of which I have personal knowledge, I am familiar with GM's business and the relative roles of GM and its suppliers relating to frontal air bag sensing systems, including the Sensing and Diagnostic Module ("SDM").

4. The SDM is one of the components in a vehicle that functions as a part of a crash sensing system to (1) sense crashes and (2) command airbag deployments and (if applicable) seatbelt pretensioner deployments. The SDM uses an algorithm with vehicle-specific calibrations to sense crashes and determine whether an airbag deployment is appropriate.

5. I have reviewed the Third Amended Complaint in *Milstead v. General Motors LLC*, Northern District California Case No. 4:21-cv-06338-JST, which alleges that the "Class Vehicles"

1 are “all GM trucks and SUVs starting with model year 1999 . . . through model year 2018.” This  
2 definition includes approximately 406 discrete models/model year vehicles.

3 6. I am familiar with the Complaint’s allegations that, in the Class Vehicles, “the  
4 software program that controls the SDM is calibrated in such a way that it prematurely prevents  
5 airbag and seatbelt deployment” and uses “cutoff times” for the software program (also known as  
6 an algorithm) in the SDM for airbag deployments that are “less than approximately 100  
7 milliseconds.” Plaintiffs allege that, “at the premature cutoff times,” “the algorithm increases the  
8 deployment thresholds to unattainable values, meaning that no matter how severe the inputs the  
9 SDM receives, the airbags and pretensioners will not deploy.” “Plaintiffs refer to this defective  
10 strategy—to calibrate software to prevent airbag and seatbelt deployment during a ‘dead zone’ that  
11 begins to soon after a crash has begun . . . —as the ‘SDM Calibration Defect.’”

12 7. To address the alleged “cut offs” and how the algorithms work in each of the  
13 approximately 406 models/model year vehicles implicated by the Third Amended Complaint, it is  
14 necessary to review various documents that are uniquely within the possession of Aptiv. GM does  
15 not set the calibration parameters for the algorithm and does not have the algorithm or calibration  
16 parameters for the SDM; instead its supplier does, and the algorithm and calibration parameters are  
17 proprietary to the supplier. With respect to the claims in this lawsuit, Aptiv or its predecessors  
18 Delco Electronics / Delphi Corporation supplied the algorithm and set the calibration for the SDM.<sup>1</sup>

19 8. GM collaborates with suppliers like Aptiv to design an SDM that meets certain  
20 performance specifications. At a high level, GM’s role is to provide the desired performance for  
21 the airbags; the supplier engineers software, i.e., algorithms, that achieves this performance. For a  
22 given performance specification in a given vehicle, each supplier would provide its own unique  
23 SDM and corresponding algorithm to meet that performance specification. The supplier also creates  
24 vehicle-specific calibrations, which in turn include many variables and inputs that differ depending  
25 on many different potential crash sequences and scenarios to determine whether and in what  
26

27 <sup>1</sup> I understand that Aptiv was previously known as Delphi. I do not know the specific legal  
28 relationship between Aptiv and Delphi, but for the purpose of this declaration I will use the name  
Aptiv for simplicity.

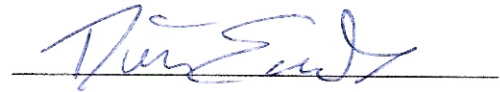


1 circumstances airbags and pretensioners deploy.

2 9. In addition, Plaintiffs allege in the Complaint that their alleged “cut off” time of less  
3 100 ms is measured by software time (not linear time). GM also does not have documents or  
4 information needed to respond to this allegation; that information is also in the Aptiv documents.

5 10. The information needed to respond to Plaintiffs’ allegations regarding the algorithms  
6 and calibrations is in Aptiv’s documents, including calibration/parameter files, Product Definition  
7 Documents, Software Definition Documents, Algorithm Definition Documents, and other  
8 documents. GM does not have these files in the ordinary course.

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10 I declare under penalty of perjury under the laws of the United States of America that the  
11 foregoing is true and correct. Executed this 18th day of April, 2025, at LaSalle, Ontario, Canada.

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